## **ABSTRACT**

The invention relates to bi-leaved valve apparatus for controlling the flow of bulk material metered out from a bulk-material metering apparatus. A bi-leaved valve apparatus comprises a substantially cylindrical flow tube defining an axial material passageway, an outlet and a flow tube actuation surface, a valve support mounted about the flow tube adjacent the flow tube outlet, said valve support and flow tube being relatively rotatable, a pair of leaves attached to the valve support and sized to seal the flow tube outlet, said leaves being movable between open and closed orientations and having a valve actuation surface adjacent the flow tube actuation surface and an actuator causing relative rotational movement of the flow tube and valve support such that rotation to a first relative position causes the flow tube and valve actuation surfaces to open the leaves and rotation to a further relative position causes the leaves to close. The valve apparatus may be used with bulk metering machines such as vertical form/fill/seal packaging machines.

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